UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/400,442	09/21/1999	JEAN-CLAUDE SARFATI	2182.0380001	3447

7590   06/17/2004

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EXAMINER
HA, LEYNNA A

ART UNIT	PAPER NUMBER
2135	

DATE MAILED: 06/17/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No. 09/400,442	Applicant(s) SARFATI ET AL.
	Examiner LEYNNA T. HA	Art Unit 2135

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _06 April 2004_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-57_ is/are pending in the application.

    4a) Of the above claim(s) _1-21,26,29-46,51 and 54-56_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _22-25,27-28,47-50,52-53, and 57_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _7 and 10_.
4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____ .

DETAILED ACTION

1.   Claims 22-25,27-28,47-50,52-53, and 57 have been examined. Claims

1-21, 26, 29-46, 51, and 54-56 have been canceled by Applicant. This is a

FINAL rejection necessitated by new grounds of rejection.

2.   Claims 22-25,27-28,47-50,52-53, and 57 are rejected under of 35

U.S.C. 103(a).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived by
> the manner in which the invention was made.

3.   *Claims 22-25, 27-28, 47-50, 52-53, and 57 are rejected under 35*

U.S.C. 103(a) as being unpatentable over Rohatgi, Et Al. (US 5,625,693) and

further in view of Tremblay, Et Al. (US 6,014,723).

As per claim 22:

Rohatgi discloses generating a signature for the data (col.5, lines 46-65)

to be downloaded and encrypting the signature using a private key (col.8, lines

37-66). See also col.10, lines 35-67. Further, Rohatgi discusses transmitting

the Directory module with the signature that includes a flag that is designated

to select one of the public keys that should be use to decrypt (col.6, lines 22-42) to provide a decrypted signature wherein is used to compare with the signature generated at the receiver decoder (col.16, lines 7-26). Rohatgi includes a Module Transmission Unit Byte Offset to indicate the byte location in the module with the signature and other data of a payload (col.4, lines 44-48). An offset (i.e. a relative address) locates a particular item such as the signature and/or other types of data in a payload. However, Rohatgi does not provide looking up the offset stored in the memory area of the receiver/decoder.

Tremblay disclose a look-up switch accelerator that includes an associative memory with stores information associated with one or more lookup switch statements such as a plurality of match values and a corresponding plurality of jump offset values. The lookup switch accelerator enhances the performance of the hardware processor in retrieving the offset values and determining whether the current instruction received by the processor corresponds to the lookup switch statement (col.22, lines 20-54).

It would have been obvious for a person of ordinary skill in the art to combine the teaching of the offset of Rohatgi with a lookup switch accelerator to enhance the performance of the processor for looking up the offset stored in the memory and that it is obvious the offset is to first locate the signature and data in order to extract the signature so that it can be compared to the corresponding signature of the receiver/decoder.

As per claim 23:

Rohatgi the extracted signature and the generated signature are compared (col.5, line 42 thru col.6, line 40). See also col.12, line 41 thru col.13, line 23. Rohatgi discuss the Table I, which includes a Module Transmission Unit Byte Offset to indicate the location in the module of the payload (col.4, lines 44-48). Rohatgi restarts (repeats) the steps of look-up, extracting, and comparing the signature (col.15, line 60 thru col.16, line 67). See also Figure 5.

As per claim 24: See col.4, lines 10-29; discussing some of the data is dummy or arbitrary data.

As per claim 25:

Rohatgi discloses the directory table and module tables are transmitted in an MPEG bit stream (col.3, lines 12-26) where at the receiver decoder for receiving MPEG bit stream (col.4, lines 40-41).

Rohatgi teaches downloading one of the Directory (MPEG) modules having the predetermined TID extension of the module MPEG tables (col.16, lines 50-66). Also see Figure 4. Rohatgi discloses generating a signature for the data (col.5, lines 46-65) to be downloaded and encrypting the signature using a private key (col.8, lines 37-66). See also col.10, lines 35-67. Further, Rohatgi discusses transmitting the Directory module with the signature that includes a flag that is designated to select one of the public keys that should be use to decrypt (col.6, lines 22-42) to provide a decrypted signature wherein is

used to compare with the signature generated at the receiver decoder (col.16, lines 7-35).

As per claim 27:

Rohatgi teaches discarding or aborting downloading the generated module if the generated module is not authentic wherein the Examiner asserts does not match to the respective Directory module (col.15, lines 43-46).

As per claim 28:

Rohatgi teaches if the generated signature is not authentic (or comparable) to the decrypted signature, then discarding or aborting downloading the data (col.15, lines 43 thru col.16, lines 66).

As per claim 47:

Rohatgi discloses receiving compressed video signals in MPEG form (col.3, lines 11-28) wherein generating a signature for the data (col.5, lines 46-65) to be downloaded and encrypting the signature using a private key (col.8, lines 37-66). See also col.10, lines 35-67. Further, Rohatgi discusses transmitting the Directory module with the signature that includes a flag that is designated to select one of the public keys that should be use to decrypt (col.6, lines 22-42) to provide a decrypted signature wherein is used to compare with the signature generated at the receiver decoder (col.16, lines 7-26). Rohatgi includes a Module Transmission Unit Byte Offset to indicate the byte location in the module with the signature and other data of a payload (col.4, lines 44-48). An offset (i.e. a relative address) locates a particular item such as

the signature and/or other types of data in a payload. However, Rohatgi does not provide looking up the offset stored in the memory area of the receiver/decoder.

Tremblay disclose a look-up switch accelerator that includes an associative memory with stores information associated with one or more lookup switch statements such as a plurality of match values and a corresponding plurality of jump offset values. The lookup switch accelerator enhances the performance of the hardware processor in retrieving the offset values and determining whether the current instruction received by the processor corresponds to the lookup switch statement (col.22, lines 20-54).

It would have been obvious for a person of ordinary skill in the art to combine the teaching of the offset of Rohatgi with a lookup switch accelerator to enhance the performance of the processor for looking up the offset stored in the memory and that it is obvious the offset is to first locate the signature and data in order to extract the signature so that it can be compared to the corresponding signature of the receiver/decoder.

As per claim 48:

Rohatgi discuss the Table I, which includes a Module Transmission Unit Byte Offset to indicate the location in the module of the payload (col.4, lines 44-48). Rohatgi restarts (repeats) the steps of look-up, extracting, and comparing the signature (col.15, line 60 thru col.16, line 67). See also Figure 5.

As per claim 49: See col.15, lines 18-26; discussing rewritable non-volatile memory.

As per claim 50:

Rohatgi discloses generating a signature for the data (col.5, lines 46-65) to be downloaded and encrypting the signature using a private key (col.8, lines 37-66). See also col.10, lines 35-67. Further, Rohatgi discusses transmitting the Directory module with the signature that includes a public key for decrypting (col.6, lines 22-42) and to provide a decrypted signature wherein is used to compare with the received signature with the respective signature generated at the receiver decoder (col.16, lines 7-67).

As per claim 52:

Rohatgi teaches discarding or aborting downloading the generated module if the generated module is not authentic wherein the Examiner asserts does not match to the respective Directory module.

As per claim 53:

Rohatgi teaches if the generated signature is not authentic (or comparable) to the decrypted signature, then discarding or aborting downloading the data (col.15, lines 43 thru col.16, lines 66).

As per claim 57:

Rohatgi discloses receiving compressed video signals in MPEG form from a transmitter (col.2, lines 36-38) wherein generating a signature for the data (col.5, lines 46-65) to be downloaded and encrypting the signature using a

private key (col.8, lines 37-66). See also col.10, lines 35-67. Further, Rohatgi discusses transmitting the Directory module with the signature that includes a flag that is designated to select one of the public keys that should be use to decrypt (col.6, lines 22-42) to provide a decrypted signature wherein is used to compare with the signature generated at the receiver decoder (col.16, lines 7-26). Rohatgi includes a Module Transmission Unit Byte Offset to indicate the byte location in the module with the signature and other data of a payload (col.4, lines 44-48). An offset (i.e. a relative address) locates a particular item such as the signature and/or other types of data in a payload. However, Rohatgi does not provide looking up the offset stored in the memory area of the receiver/decoder.

Tremblay disclose a look-up switch accelerator that includes an associative memory with stores information associated with one or more lookup switch statements such as a plurality of match values and a corresponding plurality of jump offset values. The lookup switch accelerator enhances the performance of the hardware processor in retrieving the offset values and determining whether the current instruction received by the processor corresponds to the lookup switch statement (col.22, lines 20-54).

It would have been obvious for a person of ordinary skill in the art to combine the teaching of the offset of Rohatgi with a lookup switch accelerator to enhance the performance of the processor for looking up the offset stored in the memory and that it is obvious the offset is to first locate the signature and

data in order to extract the signature so that it can be compared to the corresponding signature of the receiver/decoder.

***For further details and description of the above rejections, see Rohatgi, Et Al. and Tremblay, Et Al. on COL.5 line 15...Et. SEQ.**

Conclusion

4.   **The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.**

Rowe, Et Al. (US 5,737,599)

Leighton (US 5,949,885)

5.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37
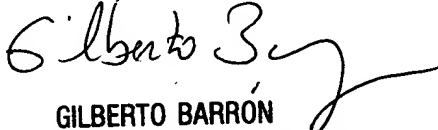
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In

no event, however, will the statutory period for reply expire later than SIX

MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to LEYNNA T. HA whose telephone number is (703) 305-

3853. The examiner can normally be reached on Monday - Thursday (7:00 - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Vu can be reached on (703) 305-4393. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR

only. For more information about the PAIR system, see http://pair-direct.uspto.gov.

Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LHA
June 8, 2004

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